CLAIMS

What is claimed is:

1. A method for treating a neurodegenerative disease in a human, comprising administering to said human at least one anti-TNF monoclonal antibody, or a TNF binding fragment thereof.

2. A method of Claim 1, wherein the TNF-mediated neurodegenerative disease is multiple sclerosis.

3. A method of Claim 1, wherein the TNF-mediated disease is selected from AIDS dementia complex, a demyelinating disease, multiple sclerosis, acute transverse myelitis, an extrapyramidal disorder, a cerebellar disorder, a lesion of the corticospinal system, a disorder of the basal ganglia, a cerebellar disorder, a hyperkinetic movement disorder, Huntington's Chorea, senile chorea, a drug-induced movement disorder, a hypokinetic movement disorder, Parkinson's disease, progressive supranucleo palsy, a structural lesion of the cerebellum, a spinocerebellar degeneration, spinal ataxia, Friedreich's ataxia, a cerebellar cortical degeneration, a multiple systems degeneration, a systemic disorder, Refsum's disease, abetalipoprotemia, ataxia telangiectasia, a mitochondrial multi-system disorder, a demyelinating core disorder, acute transverse myelitisa, a disorder of the motor unit, a neurogenic muscular atrophy, anterior horn cell degeneration, amyotrophic lateral sclerosis, infantile spinal muscular atrophy, juvenile spinal muscular atrophy, Alzheimer's disease, Down's Syndrome, a diffuse Lewy body disease, senile dementia of Lewy body type, Wernicke-Korsakoff syndrome, chronic alcoholism, Creutzfeldt-Jakob disease, subacute sclerosing panencephalitis, Hallerrorden-Spatz disease or dementia pugilistica.

CLAIMS AS FILED

What is claimed is:

1. A method of providing sustained reduction of fistulas in Crohn's disease in a human in need thereof, comprising administering to the human at least four doses provided as single or divided 0.5 - 15 mg/kg doses of an anti-TNF chimeric antibody, wherein said anti-TNF chimeric antibody competitively inhibits binding of TNF to monoclonal antibody cA2, for a sufficient period of time to reduce the number of fistulas.

2. The method of Claim 1, wherein the single or divided dose is 5 mg/kg or 10 mg/kg.

3. The method of Claim 1, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered two weeks after the first dose, a third dose is administered four weeks after the second dose, and a fourth dose is administered six weeks or eight weeks after the third dose.

4. The method of Claim 1, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered two weeks after the first dose, a third dose is administered four weeks after the second dose, and a fourth and subsequent doses are administered every eight weeks.

5. The method of Claim 1, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered two weeks after the first dose, a third dose is administered four weeks after the second dose, and a fourth and subsequent doses are administered every six weeks.

6. The method of Claim 1, wherein a first dose of the anti-TNF chimeric antibody is

administered to the human, a second dose is administered one to four weeks after the first dose, and a third, fourth and subsequent doses are administered every four weeks after the second dose.

7. The method of Claim 1, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and a third, fourth and subsequent doses are administered every three weeks after the second dose.

8. The method of Claim 1, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and a third, fourth and subsequent doses are administered every two weeks after the second dose.

9. The method of Claim 1, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and a third, fourth and subsequent doses are administered every week after the second dose.

10. The method of Claim 1, wherein the doses are administered for a period of time until the fistulas are improved substantially or in complete remission.

11. The method of Claim 1, wherein a total of 4 - 8 doses are administered.

12. The method of Claim 1, wherein the single or divided dose is 5 mg/kg, the anti-TNF chimeric antibody is cA2 and the doses are administered for up to 46 weeks.

13. The method of Claim 1, wherein the dose of anti-TNF chimeric antibody is increased upon loss of response to the anti-TNF chimeric antibody in the human.

14. The method of Claim 1, wherein the anti-TNF chimeric antibody is cA2, or a TNF binding fragment thereof.

15. The method of Claim 1, wherein said anti-TNF chimeric antibody comprises a non-human variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NO:3 and SEQ ID NO:5.

16. The method of Claim 15, wherein the non-human variable region is murine.

17. The method of Claim 15, wherein the non-human variable region comprises a polypeptide encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:4.

18. The method of Claim 1, wherein said anti-TNF chimeric antibody comprises an IgG1 constant region and competitively inhibits binding of TNF to monoclonal antibody cA2.

19. The method of Claim 1, wherein said anti-TNF chimeric antibody comprises a non-human variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NO:3 and SEQ ID NO:5 and an IgG1 human constant region.

20. The method of Claim 19, wherein the non-human variable region is murine.

21. The method of Claim 19, wherein the non-human variable region comprises a polypeptide encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:4.

22. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human by means of parenteral administration.

23. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human by means of intravenous administration, subcutaneous administration, or intramuscular administration.

24. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered orally.

25. The method of Claim 1 further comprising administering to the human an effective amount of a therapeutic agent selected from the group consisting of: disease-modifying anti-rheumatic drugs, anti-inflammatory agents, anti-neoplastic agents, radionuclides, radiotherapeutics, immunosuppressives, cytotoxic drugs, monoclonal antibodies, murine antibodies, chimeric antibodies, antibody fragments, antibody regions, cytokines, lymphokines, hemopoietic growth factors and immunoglobulins.

26. The method of Claim 25, wherein the therapeutic agent is a disease-modifying anti-rheumatic drug.

27. The method of Claim 26, wherein the disease-modifying anti-rheumatic drug is selected from the group consisting of: auranofin, azathioprine, chloroquine, D-penicillamine, gold sodium thiomalate hydroxychloroquine, Myocrisin and sulfasalzine methotrexate.

28. The method of Claim 25, wherein the therapeutic agent is an anti-inflammatory agent.

29. The method of Claim 28, wherein the anti-inflammatory agent is selected from the group consisting of: pentasa, mesalazine, asacol, codeine phosphate, benorylate, fenbufen, naprosyn, diclofenac, etodolac and indomethacin, aspirin and ibuprofen.

30. The method of Claim 25, wherein the therapeutic agent is a pain control agent.

31. The method of Claim 30, wherein the pain control agent is selected from the group consisting of: paracetamol and dextropropoxyphene.

32. The method of Claim 25, wherein the therapeutic agent is a radionuclide agent selected from the group consisting of: ^{212}Bi, ^{132}I, ^{186}Re and ^{90}Y.

33. The method of Claim 1 further comprising administering to the human an effective amount of a therapeutic agent selected from the group consisting of: antibiotics and steroids.

34. The method of Claim 1, wherein the anti-TNF chimeric antibody is of immunoglobulin class IgG1, IgG2, IgG3, IgG4 or IgM.

35. The method of Claim 1, wherein the anti-TNF chimeric antibody is a fragment selected from the group consisting of Fab, Fab', $F(ab')_2$ and Fv.

36. A method of healing mucosa that has been damaged as a result of Crohn's disease in a human in need thereof, comprising administering to the human at least four doses provided as single or divided 0.5 - 15 mg/kg doses of an anti-TNF chimeric antibody, wherein said anti-TNF chimeric antibody competitively inhibits binding of TNF to monoclonal antibody cA2, for a period of time sufficient to heal the damaged mucosa.

37. A method of reducing steroid administration used in the treatment of Crohn's disease in a human in need thereof, comprising administering to the human at least four doses provided as single or divided 0.5 - 15 mg/kg doses of an anti-TNF chimeric antibody, wherein said anti-TNF chimeric antibody competitively inhibits binding of TNF to monoclonal antibody cA2, for a period of time sufficient to reduce the steroid administration.

38. A method of reducing hospitalization visits attributed to flare-up of Crohn's disease in a human in need thereof, comprising administering to the human at least four doses provided as single or divided 0.5 - 15 mg/kg doses of an anti-TNF chimeric antibody, wherein said anti-TNF chimeric antibody competitively inhibits binding of TNF to monoclonal antibody cA2, for a period of time sufficient to reduce the hospitalization visits.

Docket No.: 0975.1005-031

Claims as filed on February 21, 2003

Claims

What is claimed is:

1. A method of treating joint inflammation in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody for a sufficient period of time to treat the joint inflammation, wherein said anti-TNF antibody competitively inhibits binding of TNF to monoclonal antibody cA2.

2. A method of treating joint inflammation in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody cA2, or a TNF binding fragment thereof, for a sufficient period of time to treat the joint inflammation.

3. A method of treating joint inflammation in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody for a sufficient period of time to treat the joint inflammation, wherein said anti-TNF chimeric antibody comprises a non-human variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 5.

4. The method of Claim 3, wherein the non-human variable region is murine.

5. The method of Claim 3, wherein the non-human variable region comprises a polypeptide encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO: 2 and SEQ ID NO: 4.

6. A method of treating joint inflammation in a human in need thereof, comprising administering to the human a single or divided 0.1 - 100 mg/kg dose of an anti-TNF chimeric antibody for a sufficient period of time to treat the joint inflammation, wherein said anti-TNF antibody competitively inhibits binding of TNF to monoclonal antibody cA2.

7. The method of Claim 6, wherein the single or divided dose of anti-TNF chimeric antibody is selected from the group consisting of: a 0.1 - 1 mg/kg dose, a 1.0 - 5 mg/kg dose, a 5 - 10 mg/kg dose and a 10 - 20 mg/kg dose.

8. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human by means of parenteral administration.

9. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human by means of intravenous administration, subcutaneous administration, or intramuscular administration.

10. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human via the lungs.

11. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered orally.

12. The method of Claim 1, further comprising administering to the human an effective amount of a therapeutic agent selected from the group consisting of:

radiotherapeutics, immunosuppressives, cytotoxic drugs, monoclonal antibodies, murine antibodies, chimeric antibodies, antibody fragments, antibody regions, lymphokines, cytokines, hemopoietic growth factors and immunoglobulins.

13. The method of Claim 1, further comprising administering to the human an effective amount of a disease-modifying anti-rheumatic drug.

14. The method of Claim 13, wherein the disease-modifying anti-rheumatic drug is selected from the group consisting of: auranofin, azathioprine, chloroquine, D-penicillamine, gold sodium thiomalate hydroxychloroquine and Myocrisin.

15. The method of Claim 1, further comprising administering to the human an effective amount of an anti-inflammatory agent.

16. The method of Claim 15, wherein the anti-inflammatory agent is selected from the group consisting of: pentasa, mesalazine, asacol, codeine phosphate, benorylate, fenbufen, naprosyn, diclofenac, etodolac and indomethacin, aspirin and ibuprofen.

17. The method of Claim 1, further comprising administering to the human an effective amount of methotrexate.

18. The method of Claim 1, further comprising administering to the human an effective amount of is a pain control agent.

19. The method of Claim 18, wherein the pain control agent is selected from the group consisting of: paracetamol and dextropropoxyphene.

20. The method of Claim 1 further comprising administering to the human an effective amount of at least one therapeutic agent selected from the group consisting of: at least one antibiotic and at least one steroid.

21. The method of Claim 1, wherein the anti-TNF chimeric antibody is of immunoglobulin class IgG1, IgG2, IgG3, IgG4 or IgM.

22. The method of Claim 1, wherein the anti-TNF chimeric antibody is a fragment selected from the group consisting of Fab, Fab', $F(ab')_2$ and Fv.

23. A method of treating joint inflammation in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody for a sufficient period of time to treat the joint inflammation, wherein said anti-TNF chimeric antibody comprises an IgG1 constant region and competitively inhibits binding of TNF to monoclonal antibody cA2.

24. A method of treating joint inflammation in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody for a sufficient period of time to treat the joint inflammation, wherein said anti-TNF chimeric antibody comprises a non-human variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 5 and an IgG1 human constant region.

25. The method of Claim 24, wherein the non-human variable region is murine.

26. The method of Claim 24, wherein the non-human variable region comprises a polypeptide encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO: 2 and SEQ ID NO: 4.

27. The method of Claim 1, wherein the joint stiffness is associated with rheumatoid arthritis.

28. The method of Claim 1, wherein the joint stiffness is associated with systemic lupus erythematosus (SLE).

Docket No.: 0975.1005-032

Claims as filed on February 21, 2003

Claims

What is claimed is:

1. A method of treating psoriatic arthritis in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody for a sufficient period of time to treat the psoriatic arthritis, wherein said anti-TNF antibody competitively inhibits binding of TNF to monoclonal antibody cA2.

2. A method of treating psoriatic arthritis in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody cA2, or a TNF binding fragment thereof, for a sufficient period of time to treat the psoriatic arthritis.

3. A method of treating psoriatic arthritis in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody for a sufficient period of time to treat the psoriatic arthritis, wherein said anti-TNF chimeric antibody comprises a non-human variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 5.

4. The method of Claim 3, wherein the non-human variable region is murine.

5. The method of Claim 3, wherein the non-human variable region comprises a polypeptide encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO: 2 and SEQ ID NO: 4.

6. A method of treating psoriatic arthritis in a human in need thereof, comprising administering to the human a single or divided 0.1 - 100 mg/kg dose of an anti-TNF chimeric antibody for a sufficient period of time to treat the psoriatic arthritis, wherein said anti-TNF antibody competitively inhibits binding of TNF to monoclonal antibody cA2.

7. The method of Claim 6, wherein the single or divided dose of anti-TNF chimeric antibody is selected from the group consisting of: a 0.1 - 1 mg/kg dose, a 1.0 - 5 mg/kg dose, a 5 - 10 mg/kg dose and a 10 - 20 mg/kg dose.

8. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human by means of parenteral administration.

9. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human by means of intravenous administration, subcutaneous administration, or intramuscular administration.

10. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human via the lungs.

11. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered orally.

12. The method of Claim 1, further comprising administering to the human an effective amount of a therapeutic agent selected from the group consisting of:

radiotherapeutics, immunosuppressives, cytotoxic drugs, monoclonal antibodies, murine antibodies, chimeric antibodies, antibody fragments, antibody regions, lymphokines, cytokines, hemopoietic growth factors and immunoglobulins.

13. The method of Claim 1, further comprising administering to the human an effective amount of a disease-modifying anti-rheumatic drug.

14. The method of Claim 13, wherein the disease-modifying anti-rheumatic drug is selected from the group consisting of: auranofin, azathioprine, chloroquine, D-penicillamine, gold sodium thiomalate hydroxychloroquine and Myocrisin.

15. The method of Claim 1, further comprising administering to the human an effective amount of an anti-inflammatory agent.

16. The method of Claim 15, wherein the anti-inflammatory agent is selected from the group consisting of: pentasa, mesalazine, asacol, codeine phosphate, benorylate, fenbufen, naprosyn, diclofenac, etodolac and indomethacin, aspirin and ibuprofen.

17. The method of Claim 1, further comprising administering to the human an effective amount of methotrexate.

18. The method of Claim 11, wherein the therapeutic agent is a pain control agent.

19. The method of Claim 18, wherein the pain control agent is selected from the group consisting of: paracetamol and dextropropoxyphene.

20. The method of Claim 1, further comprising administering to the human an effective amount of at least one therapeutic agent selected from the group consisting of: at least one antibiotic and at least one steroid.

21. The method of Claim 1, wherein the anti-TNF chimeric antibody is of immunoglobulin class IgG1, IgG2, IgG3, IgG4 or IgM.

22. The method of Claim 1, wherein the anti-TNF chimeric antibody is a fragment selected from the group consisting of Fab, Fab', $F(ab')_2$ and Fv.

23. A method of treating psoriatic arthritis in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody for a sufficient period of time to treat the psoriatic arthritis, wherein said anti-TNF chimeric antibody comprises an IgG1 constant region and competitively inhibits binding of TNF to monoclonal antibody cA2.

24. A method of treating psoriatic arthritis in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody for a sufficient period of time to treat the psoriatic arthritis, wherein said anti-TNF chimeric antibody comprises a non-human variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 5 and an IgG1 human constant region.

25. The method of Claim 24, wherein the non-human variable region is murine.

26. The method of Claim 24, wherein the non-human variable region comprises a polypeptide encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO: 2 and SEQ ID NO: 4.

Docket No.: 0975.1005-033

Claims as filed February 21, 2003

Claims

What is claimed is:

1. A method of treating a vascular inflammatory pathology in a human in need thereof, comprising administering to the human a single or divided 0.5 - 15 mg/kg dose at least once every one to six weeks of an anti-TNF chimeric antibody, wherein said anti-TNF chimeric antibody competitively inhibits binding of TNF to monoclonal antibody cA2.

2. A method of treating a vascular inflammatory pathology in a human in need thereof, comprising administering to the human a single or divided 0.5 - 15 mg/kg dose at least once every six weeks of an anti-TNF chimeric antibody, wherein said anti-TNF chimeric antibody competitively inhibits binding of TNF to monoclonal antibody cA2.

3. The method of Claim 2, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every six weeks after the second dose.

4. The method of Claim 2, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every five weeks after the second dose.

5. The method of Claim 2, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every four weeks after the second dose.

6. The method of Claim 2, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every three weeks after the second dose.

7. The method of Claim 2, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every two weeks after the second dose.

8. The method of Claim 2, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every week after the second dose.

9. A method of treating a vascular inflammatory pathology in a human in need thereof, comprising administering to the human a single or divided 1 - 15 mg/kg dose at least every one to six weeks of an anti-TNF chimeric antibody, wherein said anti-TNF chimeric antibody competitively inhibits binding of TNF to monoclonal antibody cA2.

10. The method of Claim 9, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after

the first dose, and subsequent doses are administered every six weeks after the second dose.

11. The method of Claim 9, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every five weeks after the second dose.

12. The method of Claim 9, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every four weeks after the second dose.

13. The method of Claim 9, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every three weeks after the second dose.

14. The method of Claim 9, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every two weeks after the second dose.

15. The method of Claim 9, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every week after the second dose.

16. A method of treating a vascular inflammatory pathology in a human in need thereof, comprising administering to the human a single or divided 2 - 10 mg/kg dose at least once every six weeks of an anti-TNF chimeric antibody, wherein said anti-TNF chimeric antibody competitively inhibits binding of TNF to monoclonal antibody cA2.

17. The method of Claim 16, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every two to six weeks after the second dose.

18. The method of Claim 16, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every four to six weeks after the second dose.

19. A method of treating a vascular inflammatory pathology in a human in need thereof, comprising administering to the human a single or divided 3-5 mg/kg dose at least once every six weeks of an anti-TNF chimeric antibody, wherein said anti-TNF chimeric antibody competitively inhibits binding of TNF to monoclonal antibody cA2.

20. The method of Claim 19, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every two to six weeks after the second dose.

21. The method of Claim 19, wherein a first dose of the anti-TNF chimeric antibody is administered to the human, a second dose is administered one to four weeks after the first dose, and subsequent doses are administered every four to six weeks after the second dose.

22. The method of Claim 1, wherein the anti-TNF chimeric antibody is cA2, or a TNF binding fragment thereof.

23. The method of Claim 1, wherein said anti-TNF chimeric antibody comprises a non-human variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NO:3 and SEQ ID NO:5.

24. The method of Claim 23, wherein the non-human variable region is murine.

25. The method of Claim 23, wherein the non-human variable region comprises a polypeptide encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:4.

26. The method of Claim 1, wherein said anti-TNF chimeric antibody comprises an IgG1 constant region and competitively inhibits binding of TNF to monoclonal antibody cA2.

27. The method of Claim 1, wherein said anti-TNF chimeric antibody comprises a non-human variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NO:3 and SEQ ID NO:5 and an IgG1 human in need thereof, constant region.

28. The method of Claim 27, wherein the non-human variable region is murine.

29. The method of Claim 27, wherein the non-human variable region comprises a polypeptide encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:4.

30. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human by means of parenteral administration.

31. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human by means of intravenous administration, subcutaneous administration, or intramuscular administration.

32. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human via the lungs.

33. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered orally.

34. The method of Claim 1, further comprising administering to the human an effective amount of a therapeutic agent selected from the group consisting of: radiotherapeutics, immunosuppressives, cytotoxic drugs, monoclonal antibodies, murine antibodies, chimeric antibodies, antibody fragments, antibody regions, cytokines, lymphokines, hemopoietic growth factors and immunoglobulins.

35. The method of Claim 1, further comprising administering to the human an effective amount of a disease-modifying anti-rheumatic drug.

36. The method of Claim 35, wherein the disease-modifying anti-rheumatic drug is selected from the group consisting of: auranofin, azathioprine, chloroquine, D-penicillamine, gold sodium thiomalate hydroxychloroquine and Myocrisin.

37. The method of Claim 1, further comprising administering to the human an effective amount of an anti-inflammatory agent.

38. The method of Claim 37, wherein the anti-inflammatory agent is selected from the group consisting of: pentasa, mesalazine, asacol, codeine phosphate, benorylate, fenbufen, naprosyn, diclofenac, etodolac, indomethacin, aspirin and ibuprofen.

39. The method of Claim 1, further comprising administering to the human methotrexate.

40. The method of Claim 39, wherein the anti-neoplastic agent is selected from the group consisting of: daunorubicin, doxorubicin, Mitomycin C and cyclophosphamide.

41. The method of Claim 1, further comprising administering to the human an effective amount of a pain control agent.

42. The method of Claim 41, wherein the pain control agent is selected from the group consisting of: paracetamol and dextropropoxyphene.

43. The method of Claim 1 further comprising administering to the human an effective amount of a therapeutic agent selected from the group consisting of: antibiotics and steroids.

44. The method of Claim 1, wherein the anti-TNF chimeric antibody is of immunoglobulin class IgG1, IgG2, IgG3, IgG4 or IgM.

45. The method of Claim 1, wherein the anti-TNF chimeric antibody is a fragment selected from the group consisting of Fab, Fab', $F(ab')_2$ and Fv.

46. A method according to Claim 1, wherein said vascular inflammatory pathology is at least one of Kawasaki's pathology and disseminated intravascular coagulation.

47. A method according to Claim 2, wherein said vascular inflammatory pathology is at least one of Kawasaki's pathology and disseminated intravascular coagulation.

48. A method according to Claim 9, wherein said vascular inflammatory pathology is at least one of Kawasaki's pathology and disseminated intravascular coagulation.

49. A method according to Claim 16, wherein said vascular inflammatory pathology is at least one of Kawasaki's pathology and disseminated intravascular coagulation.

50. A method according to Claim 19, wherein said vascular inflammatory pathology is at least one of Kawasaki's pathology and disseminated intravascular coagulation.

Docket No.:0975.1005-034

Claims as filed on March 4, 2003

Claims

What is claimed is:

1. A method of treating ulcerative colitis in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody for a sufficient period of time to treat the ulcerative colitis, wherein said anti-TNF antibody competitively inhibits binding of TNF to monoclonal antibody cA2.

2. A method of treating ulcerative colitis in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody cA2, or a TNF binding fragment thereof, for a sufficient period of time to treat the ulcerative colitis.

3. A method of treating ulcerative colitis in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody for a sufficient period of time to treat the ulcerative colitis, wherein said anti-TNF chimeric antibody comprises a non-human variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 5.

4. The method of Claim 3, wherein the non-human variable region is murine.

5. The method of Claim 3, wherein the non-human variable region comprises a polypeptide encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO: 2 and SEQ ID NO: 4.

6. A method of treating ulcerative colitis in a human in need thereof, comprising administering to the human a single or divided 0.1 - 50 mg/kg dose of an anti-TNF chimeric antibody for a sufficient period of time to treat the ulcerative colitis, wherein said anti-TNF antibody competitively inhibits binding of TNF to monoclonal antibody cA2.

7. The method of Claim 6, wherein the single or divided dose of anti-TNF chimeric antibody is selected from the group consisting of: a 0.1 - 1 mg/kg dose, a 1.0 - 5 mg/kg dose, a 5 - 10 mg/kg dose and a 10 - 20 mg/kg dose.

8. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human by means of parenteral administration.

9. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human by means of intravenous administration, subcutaneous administration, or intramuscular administration.

10. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human via lung.

11. The method of Claim 1, wherein the anti-TNF chimeric antibody is administered to the human orally.

12. The method of Claim 1, further comprising administering to the human an effective amount of a therapeutic agent selected from the group consisting of: radiotherapeutics, immunosuppressives, cytotoxic drugs, monoclonal antibodies, chimeric antibodies, antibody fragments, antibody regions, lymphokines, cytokines, hemopoietic growth factors and immunoglobulins.

13. The method of Claim 1, further comprising administering to the human a disease-modifying anti-rheumatic drug.

14. The method of Claim 13, wherein the disease-modifying anti-rheumatic drug is selected from the group consisting of: auranofin, azathioprine, chloroquine, D-penicillamine, gold sodium thiomalate hydroxychloroquine, Myocrisin and sulphasalazine.

15. The method of Claim 1, further comprising administering to the human an amount of methotrexate effective to treat the ulcerative colitis.

16. The method of Claim 1, further comprising administering to the human an amount of an anti-inflammatory agent effective to treat the ulcerative colitis.

17. The method of Claim 16, wherein the anti-inflammatory agent is selected from the group consisting of: mesalamine (pentasa), mesalamine (Asacol), mesalazine, codeine phosphate, benorylate, fenbufen, naprosyn, diclofenac, etodolac and indomethacin, aspirin and ibuprofen.

18. The method of Claim 1, further comprising administering to the human a pain control agent.

19. The method of Claim 18, wherein the pain control agent is selected from the group consisting of: paracetamol and dextropropoxyphene.

20. The method of Claim 1, further comprising administering to the human an effective amount of at least one therapeutic agent selected from the group consisting of: at least one antibiotic and at least one steroid.

21. The method of Claim 1, wherein the anti-TNF chimeric antibody is of immunoglobulin class IgG1, IgG2, IgG3, IgG4 or IgM.

22. The method of Claim 1, wherein the anti-TNF chimeric antibody is a fragment selected from the group consisting of Fab, Fab', $F(ab')_2$ and Fv.

23. A method of treating ulcerative colitis in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody for a sufficient period of time to treat the ulcerative colitis, wherein said anti-TNF chimeric antibody comprises an IgG1 constant region and competitively inhibits binding of TNF to monoclonal antibody cA2.

24. A method of treating ulcerative colitis in a human in need thereof, comprising administering to the human an effective TNF-inhibiting amount of an anti-TNF chimeric antibody for a sufficient period of time to treat the ulcerative colitis, wherein said anti-TNF chimeric antibody comprises a non-human variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 5 and an IgG1 human constant region.

25. The method of Claim 24, wherein the non-human variable region is murine.

26. The method of Claim 24, wherein the non-human variable region comprises a polypeptide encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO: 2 and SEQ ID NO: 4.